OCR
Oxford Cambridge and RSA

GCSE

ICT

Unit **B061/02:** ICT in Today's World

General Certificate of Secondary Education

Mark Scheme for June 2018

OCR (Oxford Cambridge and RSA) is a leading UK awarding body, providing a wide range of qualifications to meet the needs of candidates of all ages and abilities. OCR qualifications include AS/A Levels, Diplomas, GCSEs, Cambridge Nationals, Cambridge Technicals, Functional Skills, Key Skills, Entry Level qualifications, NVQs and vocational qualifications in areas such as IT, business, languages, teaching/training, administration and secretarial skills.

It is also responsible for developing new specifications to meet national requirements and the needs of students and teachers. OCR is a not-for-profit organisation; any surplus made is invested back into the establishment to help towards the development of qualifications and support, which keep pace with the changing needs of today's society.

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

Annotations

Annotation	Meaning
BP	**Blank Page** – this annotation **MUST** be used on all blank pages within an answer booklet (structured or unstructured) and on each page of an additional object where there is no candidate response.
SEEN	Seen: this annotation **MUST** be used on all responses that are NR (no response) and on Level of Response questions.
✓	**Tick**: this annotation **MUST** be used to indicate where credit has been given in a response. NB the number of ticks shown on a response must equal the mark awarded unless clearly stated to the contrary below in Section. 11.
✗	**Cross**: this annotation is used to indicate where a response is clearly wrong/incorrect or not awarded credit.
Other available annotations:	The annotations toolbar has other available annotations which may be used: TV, BOD and NBOD, Caret (to e.g. indicate that the candidate has omitted a required part of the response), Highlight, REP, NAQ, ?, ^, and the line overlay. These should be used sparingly or as directed by Team Leaders/Supervisors. Note: BOD is not a substitute for a tick...BOD is used to indicate that the tick is awarded despite the response not being as clear as would normally be expected. Also, BOD is not recorded as a tick by SCORIS and does not count towards the total mark.

Subject-specific Marking Instructions

Ticks and crosses **MUST** be used on all except LOR responses (see below) as instructed by PE and Team Supervisors. BOD is not an acceptable substitute for a tick.

Where ticks are required, the number of ticks shown on a response **MUST** be the same as the mark given for that part of the question. For this reason, where BOD has been used, a tick **MUST** accompany it.

Crosses should be used on responses that are clearly wrong, TV or caret on responses that are not worthy of credit can be used to indicate that the response has been read.

No ticks, crosses or other annotations whatsoever to be placed on the LOR questions. Where SCORIS has not made L1, L2 and L3 available to indicate the level awarded, SEEN is to be placed on LOR responses.

All responses on Additional Objects or responses elsewhere in the paper **MUST** be linked back to the originating question using the link annotation/link mechanism.

Question			Answer	Marks	Guidance
1	(a)		*Max 2 marks; one input device with matching/appropriate use, from:* (Wireless) keyboard (1) .....used to input/type characters/commands/enter URLs (to access websites) (1) remote control (1) .....used to change channels/volume/settings/input characters/commands (e.g. for searching(1) on/off/power switch/button (1) .....used to switch the TV/power on and off (1) volume control buttons (1) .....used to input sound level/volume settings/mute the TV (1) light sensor (1) .....used to input ambient light levels (1) microphone (1) ....voice control (of TV).	2	The devices should be appropriate to the system shown in Fig. 1.
	(b)		*Max 2 marks; one output device with matching/appropriate use, from:* screen (1) .....used to display programme content/alerts/menus/so you can see the programmes (1) speakers (1) .....used to output sounds / so you can hear the sound from the programmes (1) status LED (1) .....used to show if the TV is on or off/standby mode /to show when a command has been received (from the remote control) (1).	2	The devices should be appropriate to the system shown in Fig. 1. Answers may refer to the function of the device (eg 'display programme content') or what the user uses it for (eg 'to watch the programmes).

Question			Answer	Marks	Guidance
	(c)		*Two descriptions from e.g.:* catch-up TV (1) .....sourced from TV channel providers website e.g. BBC iPlayer, Demand 5, ITV Hub, Demand 4, UKTV (1) on-demand services (1) .....sourced by/via/from TV companies/movie service providers/device (e.g. TV) manufacturer portals (1) .....sourced/streamed from content providers e.g. Amazon Prime, Netflix, Curzon TV, Sony, Sky web (site) content (1) .....using web browser of/in a smart TV (1) ….using app in smart TV (1) .....sourced/streamed from social media/news channels e.g. YouTube, CNN, USA Today (1) .....user-created videos uploaded to e.g. YouTube (1) connect via Wi-Fi/wired/LAN (1) ....to PC/tablet/smartphone to view (internet) content (1).	4	Allow 2 marks from website as long as different types of content.

Question			Answer	Marks	Guidance
2	(a)		*Two from:* *1 mark for method of data entry, 1 mark for matching/appropriate benefit:* (use of) key/keypad/board/touch screen (1) .... change codes/passwords (1) .... can input (complex sequences of) code(s)/passwords (1) … you don't need to carry any special item (cards etc) (1) … easy to add new users (use of) biometric scanners or named example (1) .... check and identify that individual is actually present (1) …. more secure than most other methods (1) …. you don't need to carry any special item (cards etc) (1) (use of) voice recognition (1) .... difficult to copy/falsify (1) …. you don't need to carry any special item (cards etc) (1) (use of) bar code (reader/scanner) (1) .... readers are more robust that magnetic stripe readers (1) …. cheap/easy to make new cards/add new users (1) (use of) key card/magnetic stripe (reader/scanner) (1) .... not easily dislodged/damaged from eg ID card (1) …. can store more data (than barcode or RFID) (use of) RFID scanner (1) .... very robust (1) .... does not need to be very close contact to reader/can stay in bag/around user's neck (1) (use of) smart cards (1) …. can store more data than other methods (1) …. very robust (1) …. can be contactless / you (only) have to wave it near the reader).	6	Responses should refer to **setting** not triggering the security system. Advantages may be written as disadvantages of other methods. Eg biometric scanners = no need to remember passwords. If the implication is clear then award the mark.

Question			Answer	Marks	Guidance
	(b)		*Three ways from e.g.:* use of sound/speakers/buzzer (1) .... to create noise/alarm/buzz (1) use of light/lamps/spotlights (1) .... to shine light/flash lights/display alert warnings (1) send text/SMS (1) .... to mobile phone/pop-up on monitor/computer system/Police/security (announcing presence of person) (1) send email (1) .... to mobile phone/pop-up on monitor/computer system/Police/security (announcing presence of person) (1) make (automatic) telephone call (1) .... Police/security (1) .... with (pre-set) announcement/message (1).	6	
3			*One device per box as shown:* <table><tr><th>*Task*</th><th>*Appropriate hardware device*</th></tr><tr><td>*Adding files to an optical disk*</td><td>Optical/CD/DVD/Blu-ray (re-)<u>writer</u></td></tr><tr><td>*Producing a hard copy of a document*</td><td>printer/plotter</td></tr><tr><td>*Selecting an option from an on-screen menu*</td><td>mouse/touchpad/touchscreen</td></tr><tr><td>*Storing the operating system of the laptop*</td><td>Solid state disk/hard disk</td></tr><tr><td>*Inputting an exact copy of a printed photograph*</td><td>Scanner</td></tr></table>	5	Accept: Line 1 – Optical /CD /DVD /Blu-ray *drive* Line 4 – hard drive

Question	Answer	Marks	Guidance
4	*Marks to be awarded as per:* <table><tr><td>*Marks*</td><td>*Criteria*</td></tr><tr><td>*4*</td><td>*Two differences explained*</td></tr><tr><td>*3*</td><td>*One differences explained and point(s)*</td></tr><tr><td>*2*</td><td>*One difference explained*</td></tr><tr><td>*1*</td><td>*Points only*</td></tr><tr><td>*0*</td><td>*No valid content*</td></tr></table> *Points may include:* *explanation of backing storage:* stores data for future use/for a long time (1) non-volatile/stores data permanently/when power is turned off (1) valid example e.g. hard disk drive, solid state drive, flash memory (1) *explanation of main memory:* stores data that is currently in use/being processed (by the CPU/operating system/applications/software) (1) usually volatile/data is not stored permanently/loses data when power is turned off (1) valid example e.g. RAM/ROM (1).	4	ROM is also considered part of the main memory. .Allow valid explanation of use of ROM as main memory

Question	Answer	Marks	Guidance
5	This question to be marked as levels of response: Answers may refer, with explanations, to e.g.: • inappropriate behaviour by young people • inappropriate contact with/by others/catfishing • cyber bullying/being cyberbullied • viewing inappropriate images/content/websites • danger of downloading viruses/malware • contravention of copyright laws when using materials sourced from internet • excessive amount of time spent accessing internet • health and safety issues • time spent off task • allowing others to see/view/gather personal details • plagiarism issues.		**Content** **Levels of Response** **Level 3 (7 – 8 marks)** Candidates will explain in detail at least two reasons why young peoples' use of the internet should be monitored. Any examples used will be relevant and appropriate. The information will be relevant, clear and presented in a structured and coherent format. Specialist terms will be used correctly and appropriately. There will be few, if any, errors in grammar, punctuation and spelling. **Level 2 (4 – 6 marks)** Candidates will explain and/or describe reason(s) why young peoples' use of the internet should be monitored. Any examples used will be for the most part relevant. For the most part, the information will be relevant and presented in a structured and coherent format. Specialist terms will be used appropriately and for the most part correctly. There may be occasional errors in grammar, punctuation and spelling. **Level 1 (1 – 3 marks)** Candidates will list some reasons why young peoples' use of the internet should be monitored. Any examples, if used, may lack relevance. Answers may be in the form of a list. There will be little or no use of specialist terms. Errors of grammar, punctuation and spelling may be intrusive.
		8	0 marks – no valid content.

Question			Answer	Marks	Guidance
6	(a)	(i)	D6	1	
		(ii)	E6 E11	2	

	(b)		This is the formula in cell E14:
			
			=IF(E11>10,"Profit Target Met","Profit Target NOT met")
			
			A B **C**
			
			Responses from:
			
			A: a function (1)
			   .....to make a decision/ask a question (1)
			   .....based on the contents of the following ()s/to evaluate the (logic) statement (in B) (1)
			    .....to conduct a (conditional) test on B /(cell) E11 (1)
			B: compares value in E11 (1)
			    ....to check if value is over 10 (1)
			C: displays *Profit Target NOT met/*statement/text in quotes (1)
			     ....quotes show the contents as text / show what will be put in the cell (1)
			    ....if value in E11 is not greater than 10/is 10 or less/equal or less than 10/comparison is false (1).
				6	

Question	Answer	Marks	Guidance	
7	This question to be marked as levels of response: Answers may refer to e.g.: • Video conferencing • Web conferencing • Use of cloud storage • use of smartphone and its features • use of mobile phone network – 3G, 4G etc • use of laptop and its features • use of internet to transfer files • use of internet to communicate e.g. email • use of protocols such as FTP, https etc • use of secure logins to company network • use of VPNs • use of extranet.		**Content**	**Levels of Response** **Level 3 (7 – 8 marks)** Candidates will explain in detail at least two ways that ICT allows people to continue to work when they are away from their main office. Any examples used will be relevant and appropriate. The information will be relevant, clear and presented in a structured and coherent format. Specialist terms will be used correctly and appropriately. There will be few, if any, errors in grammar, punctuation and spelling. **Level 2 (4 – 6 marks)** Candidates will explain and/or describe way(s) that ICT allows people to continue to work when they are away from their main office. Any examples used will be for the most part relevant. For the most part, the information will be relevant and presented in a structured and coherent format. Specialist terms will be used appropriately and for the most part correctly. There may be occasional errors in grammar, punctuation and spelling. **Level 1 (1 – 3 marks)** Candidates will list some way(s) that ICT allows people to continue to work when they are away from their main office. Examples, if used, may lack relevance. Answers may be in the form of a list. There will be little or no use of specialist terms. Errors of grammar, punctuation and spelling may be intrusive.
		8		0 marks – no valid content.

Question	Answer	Marks	Guidance
8	*One use of interface from, max two from:* *Q&A method:* system asks questions of mechanic (1) .... mechanic inputs answers/symptoms (1) System asks questions based on answers to its previous questions (1) *OR* *Plug-in method:* system connected to car through data port/socket/OBD socket or connector (1) .... system interrogates car engine management system (1) .... system reads data from sensors/named appropriate sensor attached to engine (1) *Max four from:* inference engine searches with query (1) .... from mechanic/data from engine management system (1) knowledge base is collection of facts and rules (1) .... searched by inference engine using rules base (1) ....to match data from mechanic/engine (1) possible causes/faults suggested/system suggests possible faults (1) mechanic selects likely fault (1) expert system outputs a set of error/fault codes (1) ..... via user interface/screen/printout (1).		Allow references to methods...e.g. Can act like a flowchart (1)
		6	
	Total	60	

OCR (Oxford Cambridge and RSA Examinations)
The Triangle Building
Shaftesbury Road
Cambridge
CB2 8EA

OCR Customer Contact Centre

Education and Learning
Telephone: 01223 553998
Facsimile: 01223 552627
Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

For staff training purposes and as part of our quality assurance
programme your call may be recorded or monitored